

Gopher: Underground Technology By Lore Sjöberg

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Back in 1992, when "yahoo" was something cowboys yelled and "ebay" was just pig Latin, the University of Minnesota developed a new way of looking at data on the Internet. Their protocol, called "gopher" after the UMN mascot, allowed archivists to present the mishmash of information in a standard format, and enabled readers to navigate documents on a world of servers using a simple visual interface.

For a while, it seemed as if gopher might open the Internet up to the nontechnical masses and usher in a new era of online communication. It very well might have, if the Web hadn't come along and done it instead.

Mention gopher to a newcomer to the Web and you might get a blank stare. Mention it to an old-timer and you're likely to see a nostalgic smile. But to a community of developers and enthusiasts, gopher is alive and kicking. And if they have their way, it will have a healthy future.

According to a [list](#) on Floodgap.com, over 250 active gopher servers are currently online, serving documents ranging from lawyer jokes to the text of the Shays-Meehan campaign finance reform bill. Almost half these servers are affiliated with American colleges and universities, but servers are also located on every continent but Africa and Antarctica.

One such repository is [Quux.org](#) and is maintained by John Goerzen, a 24-year-old Kansas systems administrator and programmer. In addition to managing what is to his knowledge the largest actively maintained gopher server in existence, Goerzen is the developer of a gopher server called PyGopherd, and the maintainer of the original gopher code from the University of Minnesota.

Goerzen's work on gopher is strictly volunteer, and his main motivation is his own enjoyment.

"Put most simply, gopher is fun," he explains. "Any programmer with

experience with network programming can write a pretty much full-featured gopher server or client in a couple of hours."

Another of his motivations is preserving the history of the Internet. "A lot of gopher sites are disappearing -- running on servers that have been forgotten by now -- and I wanted to be able to prevent the content on them from disappearing forever," he said. "I started Quux.org, my gopher site, with that in mind."

Goerzen is not just an archivist, though. He sees a future for gopher in applications such as data exchange.

"I'm interested in using gopher as a protocol for dynamic information exchange in a way similar to XML-RPC and SOAP," he says.

He also sees gopher as an excellent alternative to PDA and smartphone Web browsers.

"Consider this example: Port-a-Goph, a gopher client in development for Palm OS. Cameron Kaiser wrote this in his spare time and got it working quickly on his own Palm," he said. "Contrast that with the state of Web browsing on handheld devices: Despite many years to improve them, I still regularly run across websites that simply do not render at all, or render so poorly that they are unusable."

Whatever its future, development for gopher continues. Late last month saw the release of a gopher module for Apache, allowing the popular open-source Web server to serve up gopher pages as well as Web pages.

Despite its relative obscurity, gopherspace is accessible to many more Web users than people realize. Gopher support is built into Mozilla-based browsers including Firefox, most versions of Netscape and Internet Explorer up to version 5, although the degree of support varies. People who want to stick with the familiarity of *http* can use the [public gopher proxy](#) at Floodgap.com, which translates gopher pages into HTML.

Visitors to gopherspace will find a piece of the Internet's history, some of which, Goerzen says, isn't available anywhere else. They will also find [The Gopher Manifesto](#), a document praising gopher's simplicity and elegance.

The Gopher Manifesto describes gopher as "a hypertext Eden" that existed before the clutter and commercialization of the Web. "Is it time for a new Renaissance on the Internet, to bring back the promise of the early years?" it asks.

Goerzen's take on that question is subdued, but optimistic. "I don't expect gopher to ever overtake the Web," he says. "I do expect it to continue to exist."



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